

SEP. 17. 2007 6:38PM

866 741 0075

RECEIVED
CENTRAL FAX CENTER

SEP 17 2007

- 10 -

Application No. 10/735,732
Docket No. 740756-2684

REMARKS

The above amendment with the following remarks is submitted to be fully responsive to the Final Office Action of June 15, 2007. Reconsideration of this application in light of the amendment and the allowance of this application are respectfully requested.

Claims 1-15 were pending in the present application prior to the above amendment. In response to the Office Action, claim 1 is amended, and claims 20-37 have been added. New independent claim 26 and its dependent claims 27-37 are clearly supported by paragraph [0034] in which the use of a polypyrrole derivative or a polyfuran derivate as a fundamental skeleton is described. Therefore, claims 1-15 and 20-37 are now pending in the present application and are believed to be in proper condition for allowance.

Referring now to the Office Action, claims 1-7 are rejected under 35 U.S.C. 103(a) as obvious over Heuer (U.S. Pat. No. 6,368,731) in view of Lidberg (Proceedings of SPIE – The International Society for Optical Engineering (1995), 2397, Optoelectronic Integrated Circuit Materials, Physics, and Devices, p. 633-42). Claims 8-11 are rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Lidberg in further view of Yang (U.S. Pat. No. 5,723,873). Claim 12 is rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Lidberg in further view of Ara (U.S. Pat. No. 6,613,454). Applicants respectfully traverse.

Independent claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Heuer in view of Lidberg. The present invention relates to a light-emitting device comprising, among other features, a hole injecting layer comprising an electron-accepting organic compound and a conjugate polymer. As provided in amended claim 1, for instance, the structure of the conjugate polymer is a substituted polythiophene expressed by formula (1). This limitation is derived from formula (1) shown in the specification in paragraph [0035] and from the description in paragraph [0052].

Applicants note the fact that, although Lidberg appears to disclose 3-octylthiophene and poly(3-octylthiophene) (See, for example, Figure 1 of Lidberg), the reference fails to teach polythiophene having the formula (1). Specifically, amended claim 1 discloses polythiophene having substituents at both 3- and 4-positions of the

- 11 -

Application No. 10/735,732
Docket No. 740756-2684

thiophene ring, while Lidberg only shows polythiophene having only one substituent at the 3- position of the thiophene ring. The introduction of substituents at both the 3- and 4-positions contributes to improvement in conductivity since the polymerization sites can be limited to the 2- and 5-positions (See, the specification of the instant application, for example, lines 7 to 14 in the right column in page 4 of the present Patent Application Publication).

Similarly, Heuer fails to disclose the technical feature recited in the amended claim 1. Specifically, the amended claim discloses the introduction of thioalkyl groups, trialkylsilyl groups or aromatic substitution groups onto both the 3- and 4-positions in order to facilitate the oxidation of the main chain of conjugate polymers with an electron-accepting organic compound. By contrast, although Heuer discloses a polythiophene having two alkoxy groups introduced at the 3- and 4-positions, a polythiophene having the substituents recited in amended claim 1 is not taught nor suggested.

Similarly, Yang only shows polythiophene having only one substituents at 3 position of the thiophene ring, but does not show a polythiophene having the substituents recited in amended claim 1.

Finally, Ara only generally describes polythiophenes and does not disclose a polythiophene having the substituents recited in amended claim 1.

Because neither Heuer, Lidberg, Yang, nor Ara teach all of the elements of amended claim 1, alone or in combination, Applicants respectfully submit that neither Heuer, Lidberg, Yang, nor Ara render claim 1 unpatentable. Accordingly, Applicants request the rejection of this claim be withdrawn. Because claims 2-15 depend upon claim 1, Applicants request that the rejection of these claims also be withdrawn, and that claims 1-15 be allowed.

New claims 20-37 are added to recite additional features of the present invention. Specifically, claim 21 depends from claim 1 and should be allowable for the reasons advanced above.

New claim 21, as well as claims 22-37 depending therefrom, relates to further features of the present invention relating to the conjugate polymer wherein a fundamental skeleton of the conjugate polymer is polyaniline, polypyrrole or polyfuran. Support for this feature is provided in the specification of the instant application, particularly at

- 12 -

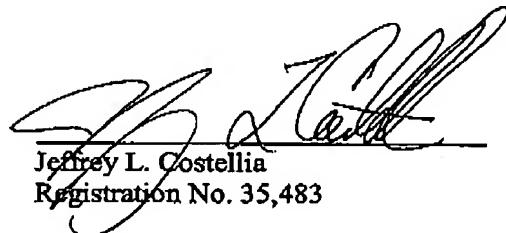
Application No. 10/735,732
Docket No. 740756-2684

paragraph 34 thereof. Consideration and allowance of these claims are respectfully requested.

Conclusion

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if any issue remains after considering this response, the Examiner is invited to call the undersigned to expedite the prosecution and work out any such issue by telephone.

Respectfully submitted,



Jeffrey L. Costellia
Registration No. 35,483

NIXON PEABODY LLP
401 9th Street, N.W., Suite 900
Washington, D.C. 20004-2128
(202) 585-8000
(202) 585-8080 (Fax)
Customer No. 22204

Dated: September 17, 2007